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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,295	05/24/2002	Pierre Goelff	4004-033-30	1170

7590 04/09/2003

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EXAMINER

KOPPIKAR, VIVEK D

ART UNIT	PAPER NUMBER
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1775

10

DATE MAILED: 04/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/088,295

Applicant(s)

GOELFF ET AL.

Examiner

Vivek D Koppikar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

FINAL OFFICE ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 14-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what is meant by “pyrogenous” or “pyrogenic” silica. The specification does not provide a definition.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 14-17, 19-20, 22-23, 26-27 and 29 rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 4,190,698 to DeBoel.

With regard to Claim 14-16, DeBoel suggests using a fire-resistant layer in between two glass sheets. The layer contains particles of silica as well as aluminum phosphate (Col. 1, Ln. 13-23). The formula for aluminum phosphate is $\text{Al}(\text{H}_2\text{PO}_4)_3$ so the P/X ratio is 3. De Boel fails to show that the silica is pyrogenous. However, absent a showing of unexpected results for pyrogenous silica, this is not seen as a patentable distinction.

With regard to Claim 17, DeBoel teaches using sodium aluminate in the fire resistant layer (Col. 1, Ln. 22).

With regard to Claims 19-20, 22-23 and 29, DeBoel teaches that the weight percentages of silica are less than 20% and more preferably less than 10 % by weight (Col. 2, Ln. 23-27). The fire screening layer has a water content of 34% (Col. 5, Ln. 1-14). Since the water content and silica content are present in De Boel in essentially the same proportions as in the instant application, it is the position of the examiner that the intumescent layer would be sufficiently fluid to flow between the glass sheets.

With regard to Claim 26, the ethylene glycol is present in amounts of less than 10% of the weight of the layer (Claim 3).

With regard to Claim 27, DeBoel uses ethylene glycol as an additive (Col. 3, Ln. 10).

Response to Arguments

5. The claim objections set forth in the Office Action dated October 3, 2002 has been withdrawn in view of the amendment filed February 3, 2003.

The 35 USC 112 rejection applied only to Claim 18 and the 35 USC 112 rejection applied only to Claims 24-25 in the Office Action dated October 3, 2002 have also been withdrawn in view of the amendment and arguments filed February 3, 2003.

6. Applicant's arguments filed on February 3, 2003 in response to the 35 USC 112 rejection of Claims 14-38 have been fully considered but they are not persuasive.

In order to overcome the 35 USC 112 rejection the applicants have pointed to page 3, line 27+ and page 9, lines 12-14 in the specification. The paragraph starting on Page 3, line 27

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simply states that pyrogenic silica is formed from particles of very small dimensions and that they have hydroxyl groups present on their surface which gives them a hydrophilic character. It is not clear to the examiner whether this is the definition of “pyrogenic”.

The text on page 9, lines 12-14 simply describes the company and the trade name as well as the dimension of the silica but the examiner takes the position that in no way does this provide sufficient information for one of ordinary skill in the art to understand what is meant by the term “pyrogenic” silica.

Finally the reference provided by the attorney in the Information Disclosure Statement filed on September 30, 2002 is in French and therefore if the applicants intend to incorporate this reference as part of the specification then a translation of the reference is requested.

To overcome the 35 USC 112 rejection it is requested that the applicants provide a clear definition of the term “pyrogenic silica” and state how it differs from ordinary silica.

7. Applicant's arguments filed on February 3, 2003 in response to the 35 USC 103 rejection of Claims 14-17, 19, 20, 22, 23, 26, 27 and 29 have been fully considered but they are not persuasive.

The applicants argue that the aluminum phosphate and silica in DeBoel are mentioned only as possible adjuvants.

With regard to this argument, the examiner takes the position that even though these compounds are used as adjuvants both of them are still used in the intumescent layer of De Boel in at least one embodiment.

The applicants argue that the content of the phosphate compound in De Boel is much less than what is required by the instant invention.

With regard to this argument, the examiner takes the position that the limitation of the phosphate compound being present in the intumescent layer at greater than 50 to 55% is not claimed.

The applicants argue that the silica in De Boel serves a different purpose than the silica in the instant invention. In response to this argument the examiner takes the position that even though the intended use of the silica in De Boel serves a different purpose than in the instant invention the fact remains that De Boel still uses silica. Furthermore, the applicants have not claimed the reason that silica is used.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent Number 5,055,208 to Stewart teaches fire extinguishing compositions which include pyrogenic silica.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

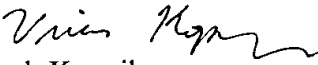
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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Vivek Koppikar** whose telephone number is **(703) 305-6618**. The examiner can normally be reached on Monday-Friday from 8 AM to 5 PM, Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones, can be reached at (703) 308-3822. The fax phone numbers for the organization where this application or proceeding are assigned are (703) 305-7718 for regular communications and (703) 305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


Vivek Koppikar

4/4/03


DEBORAH JONES
SUPERVISORY PATENT EXAMINER